# Comprehensive and Multi-Method Assessment of School-Based Mental Health Services

**Gloria J. O. Carpenter, Ph.D.**
Post-Doctoral Fellow, Pediatric Psychology
Cincinnati Children's Hospital Medical Center

**Mary DePaola**
Director,
Talbert House Prevention Services

**Natasha Buchanan, M.A.**
Research Assistant, ***INNOVATIONS***
Cincinnati Children's Hospital Medical Center

**Susannah Coaston, B.S.**
Research Assistant, ***INNOVATIONS***
Cincinnati Children's Hospital Medical Center

## Overview

- This presentation will discuss:
  - the usefulness of a quasi-experimental design
  - the strengths and weaknesses
  - implications for informing public policy and strengthening community programs.
- Data from a collaborative program (Project PASS and Cincinnati Public Schools) will be featured.

## Introduction

- The use of comprehensive research designs allows for sufficient monitoring of internal and external factors to ensure program success.
- To ensure external validity and implementation challenges, program evaluators argue for combining different methods of evaluation.

## Usefulness of This Design

- Quasi-Experimental Research Design
  - Empirical research
    - Evidence-based programs
  - Contextual and multivariate approach
    - Process and outcomes
  - Qualitative and Quantitative outcomes

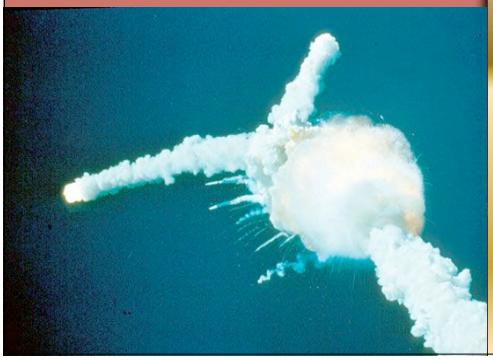
## *Strengths of Using Comprehensive Evaluation Methods*

- A well-defined evaluation plan
- A multi-method approach
- Perspectives from multiple informants
- Comprehensive results and outcomes
  - Process-focused and implications for program improvements

## *Limitations of Using Comprehensive Evaluation Methods*

- Extensive process to ensure validity and robustness of program evaluation.
- Programs will need a plan for resolving divergence in data sources.
- More resources may be needed to collect, manage and analyze data.

## Putting it into practice….



## *Example:* A Collaborative Evaluation Approach

**Comprehensive Outcomes for Project PASS, a Talbert House School-Based Program**

## School-Based Mental Health

- Over the past decade, school-based mental health programs have received increased attention.
- There is a growing need for more effective, collaborative systems.

## School-Based Mental Health

- A priority is to ensure that school-based mental health practices are effective.
- Ongoing evaluations of evidence-based practices should be:
  - culturally competent
  - reflective of a strong commitment to family and community engagement

## Comprehensive Evaluation of School-Based Mental Health Programs

- Program evaluations of school-based mental health programs must be comprehensive enough to assess impact across multiple dimensions, including the perspectives of:
  - parents
  - school personnel
  - students

## Project Pass

- Project PASS is a collaborative partnership with schools by which comprehensive and integrated social/emotional and behavioral health services are provided.

## Project Pass - Mission

- Mission of the program:

*To provide flexible, strength-based, culturally competent, individualized and family-focused services to students and their families in the communities and school in which they live.*

*To promote healthy behaviors, the development of life skills, and promote collaboration among the child-serving system.*

## Project Pass – Program Development

- The program was based on:
  - School-Based Behavioral Health Project
  - Public Health Prevention Model
  - Protective Factors/ Social Competence/ Strength-Based Model

## Project Pass – Implementation

- Project PASS is implemented in six Cincinnati Public Schools where academic, behavioral, and mental health challenges are prevalent.
- Seven targeted intervention/ prevention strategies:
  - Increasing Anger Management Skills
  - Decreasing Aggression Rates
  - Increasing Self-Esteem
  - Increasing Social Skills
  - Decreasing Behavioral Problems
  - Improving School Performance
  - Increasing School Attendance Rates

## Comprehensive Evaluation Plan - Goal

- A comprehensive evaluation model
  - stakeholders
  - agency workers
  - parents
  - students
- A similar model could be utilized to demonstrate the effectiveness of school-based mental health services and to leverage data for public policy and advocacy efforts.

## Comprehensive Evaluation Plan - Steps

- The steps utilized in this comprehensive evaluation include:
  - Collecting data
  - Administering quantitative pre/ post tests, & standardized measures.
  - Collecting qualitative survey data
  - Implementing an evaluation design to assess over 1800 students (in 2004-05) across six schools.

## Data Collection

- Measures included
  - Modified Aggression Scale
  - Teacher Behavior Checklist
  - the Ohio Scales, survey questionnaires
  - school grades, attendance, etc.
- Data is collected by site coordinators and is submitted to ***INNOVATIONS*** of Cincinnati Children's Hospital for analysis

## Data Collection

- Currently, data has been collected on over 1800 students for the 2004-2005 academic year, including 1131 students receiving prevention or intervention services.
- Pre and post data were available on 794 of these students

## Results

- Data collected across the six program sites and related to the seven program goals
- Data trends available for the past four years.

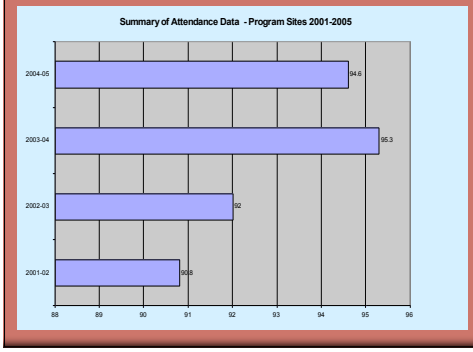
## Quantitative Results

- Students in the program showed positive trends on
  - Attendance
  - Proficiency test performance
  - Discipline

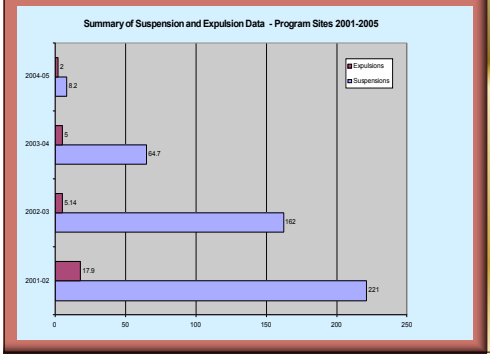
## Quantitative Results

| Program Target | Outcome |
|---|---|
| Students showing an increase in Anger Management skills and Conflict Resolution. | 89.9% |
| Students improving on Problem Behaviors (as rated by teacher, parent, and group facilitator). | 74.4% |
| Students showing an increase in Caring and/or a decrease in Bullying | 72.7% |
| Students successfully resolving peer conflicts through Peer mediation | 90.1% |
| Students improving in grades from the first quarter to the fourth academic quarter. | 93.3% |

## Quantitative Results



## Quantitative Results




## Quantitative Results

- In addition, the Ohio Scales were completed on students in the highest risk categories.
- Data highlight the clinical challenges and needs of these high risk students.

## Ohio Youth Scales - Results

The scores on the Ohio Scales (through May, 2005), across participants and time points were as follows:

| Rater | Scale | Project PASS Mean (SD)** | Community Sample* Mean (SD)** |
|---|---|---|---|
| Youth | Problem Severity | 24. 7 (14.7) | 18.18 (15) |
| | Functioning | 57 (11.5) | 61.07 (13) |
| | Hopefulness | 10 (4.6) | 9.6 (3.8) |
| | Satisfaction | 9.2 (4.6) | N/A |
| Parent | Problem Severity | 27.5 (14.5) | 10.3 (9.9) |
| | Functioning | 46.1 (13.6) | 64 (12.7) |
| | Hopefulness | 11.6 (4.3) | 8.3 (3.5) |
| | Satisfaction | 8.6 (5.1) | N/A |
| Worker | Problem Severity | 23.2 (16.3) | 17.6 (9.6) |
| | Functioning | 45.9 (13.5) | 67 (9) |

*Community Sample data taken from User's Manual: Ogles, B.M., Melendez, G., Davis, D.C., and Lunnen, K.M. (1999). The Ohio Youth Problems, Functioning, and Satisfaction Scales (Short Form). **SD – Standard Deviation

## Qualitative Results

- Qualitative data
  - Principals
  - Parents
  - Students
- Parents acknowledged a change in their child's academic and behavioral functioning.
- Principals responded to several questions indicating that the program helps reduce discipline referrals, promotes social consciousness, and higher achievement.

## Summary

- In summary, data reveal that the program is achieving its end goal which is to successfully serve the mental health needs of "at risk" and "high-risk" youth.
- The evaluation plan has been refined over the past four years to ensure feasibility and data integrity.

## Implications for Public Policy

- Results indicate positive trends in student attendance, discipline, and social skills.
- This could be leveraged to increase funding of school-based mental health programs

## Implications for Public Policy

- Results also offer suggestions supporting funding for program improvements
- Implications for sub-specialty programs based on student needs

## Conclusion

- This presentation highlighted an example of how collaboration and evaluation is critical to assessing the impact of a school-based mental health program and the needs of its participants.

## THANK YOU!!!

# Utilizing Collaboration and Quasi-Experimental Methods to Evaluate and Refine School-Based Mental Health Programs


## Abstract

There is an increased need to promote effective programming while integrating evidence-based practices, systems of care, and individualized care (Friedman and Drews, 2005). Society's increasing need to provide more comprehensive mental health services to children across the nation has unveiled the significance of agency collaboration and mixed methodology to facilitate more accurate, thorough evaluations to ascertain the impact of services on children, their families and communities. This presentation provides an example of how the use of quasi-experimental designs is beneficial for more comprehensive, effective, and integrated programs and services.



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## Presentation Overview

### Introduction

Over the past decade, school-based mental health programs have received increased attention based on the growing need for more effective, collaborative systems, which promote the well-

being and school success of all children and youth (Weist, Paternite, and Adelsheim, 2005). Although randomized experimental designs have contributed to rigorous methodological research, these designs are not often feasible to evaluate social programs for which there are often practical and ethical barriers at the forefront. Given this limitation related to external validity and implementation challenges, program evaluators argue for combining different methods of evaluation (Chen, 2005). Quasi-Experimental evaluations can also be used to ensure that school-based mental health practices are effective. The use of mixed methods research designs that are culturally competent, community-sensitive and evidence-based allow for sufficient monitoring of internal and external factors to ensure program success (Wandersman, 2003). These designs highlight the complexity of program delivery process and places programs in context among other sets of factors that influence outcomes (Chen, 2005).

This paper will discuss the strengths and weaknesses of using mixed methods in program evaluation, specifically quasi-experimental designs. In addition, data from a not-for-profit mental health agency will be featured to demonstrate the use of quasi-experimental data analysis and collaborations among schools and community agencies.

***Strengths of Using Mixed Methods***

- Data analyses utilize a combination of quantitative and qualitative procedures, which provide deeper insights into a program's effectiveness.
- Methodology provides external validity in measuring outcomes and service delivery.
- The evaluation fits the natural processes of the real world and individual experiences.
- Results and outcomes provide more information regarding the *process* of program delivery and how to improve programs, thus aiming for high scientific and stakeholder credibility.
- Mixed methods of evaluation are well-suited for measuring contextual concepts.

***Limitations of Using Mixed Methods***

- Evaluation of the program does not adhere exclusively to the traditional scientific research framework (e.g., controlling the setting, and assigning clients to random intervention conditions).
- Challenged to ensure internal validity and unbiased measurement of outcomes.
- The methodology does not represent the scientific rigor of research that is often preferred by renowned grant review panels.

## *Example:* Using Quasi-Experimental Research

### Comprehensive Outcomes for Project PASS, a Talbert House School-Based Program

**Background**

Project PASS is a collaborative partnership with schools by which comprehensive and integrated social/emotional and behavioral health services are provided. The Mission of the program is to provide flexible, strength-based, culturally competent, individualized and family-focused services to students and their families in the communities and school in which they live, to promote healthy behaviors, the development of life skills, and promote collaboration among the child-serving system. The program was developed based on: the School-Based Behavioral Health Project, the Public Health Prevention Model, and the Protective Factors/ Social Competence/ Strength-Based Model.

Project PASS is implemented in six Cincinnati Public Schools where academic, behavioral, and mental health challenges are prevalent. The evaluation plan is designed around eight targeted intervention/ prevention strategies:

1. Increasing Anger Management Skills
2. Decreasing Aggression Rates
3. Increasing Self-Esteem

4. Increasing Social Skills
5. Decreasing Behavioral Problems
6. Improving School Performance
7. Increasing School Attendance Rates and
8. Decreasing Multiple "Risk" Indices (targets 1 to 7) in Program Participants

Given Project PASS' mission to provide effective school-wide and individualized strategies to promote positive student mental health in students and collaboration among child-serving systems, the following objectives guided the analyses, which aimed to:

1. Report the status of youth's behavior problems and strengths by examining the eight domains listed above, as well as parent reports using the Ohio Scales, a standardized measure.
2. Identify problem behaviors and functioning of youth identified and receiving intensive services.
3. Describe student and parent satisfaction of the program as well as principals' perceptions of student performance and the program impact.

**Data Management Plan and Database Design**

Data is obtained using several measures, including the Anger Scale from the Parent, Facilitator, Teacher Behavior Checklist, the Ohio Scales, school bonding scale, survey questionnaires, school grades, etc. Data is collected by site coordinators and is submitted to *INNOVATIONS* of Cincinnati Children's Hospital, an independent evaluation team, for data entry, analysis, and summary. Currently, data has been collected on over 1800 students for the 2004-2005 academic year, including 1131 students receiving prevention or intervention services. Pre and post data were available on 794 of these students, numbers sufficient to ensure validity and statistical power in pre-post comparisons.

**Results**

Data analysis indicated that at least 72% of the students demonstrated improvements on each of the program components, excluding the Behavioral Problems component, as it was measured with qualitative reports from the principals. Parents acknowledged a change in their child's academic and behavioral functioning, and credited Project PASS with being essential in this progress. Principals responded to several questions indicating that the program helps reduce discipline referrals, promotes social consciousness, and higher achievement. In addition, item analyses of the Ohio Scales revealed areas of strengths and specific problem behaviors for which clinical services will address. Data highlights are illustrated below.

A. Project Pass Participants compared with Test Norms

The scores on the Ohio Scales (through May, 2005), across participants and time points were as follows:

| Rater | Scale | Project PASS Mean (SD)** | Community Sample* Mean (SD)** |
|---|---|---|---|
| **Youth** | Problem Severity | 24. 7 (14.7) | 18.18 (15) |
| | Functioning | 57 (11.5) | 61.07 (13) |
| | Hopefulness | 10 (4.6) | 9.6 (3.8) |
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| **Worker** | Problem Severity | 23.2 (16.3) | 17.6 (9.6) |
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**SD – Standard Deviation

B. Ohio Scales outcomes for participants who received Intervention Services

| Rater | Scale | Pre-Test Mean | (SD) | Post-Test Mean | (SD) |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| **Youth N = 26** | **Problem Severity** | **23.38** | (14.07) | **14.85** | (9.91) |
| | **Functioning** | **53.85** | (14.21) | **44.54** | (24.27) |
| | **Hopefulness** | **9.91** | (4.01) | **9.63** | (3.25) |
| | **Satisfaction** | **12.45** | (5.20) | **9.50** | (3.12) |
| **Parent n =72** | **Problem Severity** | **27.81** | (12.31) | **21.26** | (15.00) |
| | **Functioning** | **43.94** | (13.39) | **43.69** | (20.78) |
| | **Hopefulness** | **11.58** | (4.94) | **13.50** | (11.20) |
| | **Satisfaction** | **11.00** | (9.32) | **23.20** | (23.47) |
| **Worker n =86** | **Problem Severity** | **31.14** | (21.62) | **43.49** | (36.06) |
| | **Functioning** | **42.38** | (15.91) | **31.67** | (23.99) |
| | **Roles (SW)** | **2.09** | (.20) | **2.16** | (.29) |

**SD – Standard Deviation

**Conclusions**

The data from Project Pass suggest that the program is serving high-risk youth with low, moderate and severe mental health issues as intended. This point was highlighted by Ohio Scales data compared to the published norms from a community sample. In addition, more than10% of students were identified as having 5 or more risk factors and item analyses of the Ohio Scales Problem subscale identified problem areas for continued treatment. These children will be followed during the next academic year to assess their long-term outcomes on targeted behaviors (self-esteem, anger management, promotion, etc.). Overall, pre and post measures revealed an improvement in students' functioning following the interventions.

**Presentation Summary**

The presentation highlights the significance of quasi-experimental research design to provide outcome data for stakeholders, agency workers, parents, and students. Qualitative analyses inform individual treatment services, while quantitative analyses provide outcomes for interventions and programmatic services targeting at risk factors and behavioral and mental challenges. Although the current report presented data from one year of intervention services, it is important to note that the program is continually demonstrating significant improvements in

their outcomes. In addition to outcome data, feedback and recommendations were provided to the program to ensure efficient data collection methods and address quality assurance methods.

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